

### *Amendments*

Kindly enter the following amendments to the claims:

1-18 (canceled).

19 (presently amended). A preparation of non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin produced by the process comprising the steps of:

- (A) removing endotoxin from a preparation containing red blood cells;
- (B) removing oxygen from said preparation containing red blood cells, **wherein said oxygen is removed by centrifuging the red blood cells under a vacuum sufficient to remove oxygen from the preparation;**
- (C) lysing **the** red blood cells.

20 (canceled)

21 (presently amended). The preparation of non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim [20] **19**, wherein said process additionally comprises the steps of:

- (D) separating hemoglobin from the stroma of said lysed red blood cells; and
- (E) cross-linking said separated hemoglobin.

22 (original). The preparation of non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim 21, wherein said process step (A) additionally comprises washing surfaces and equipment that will come into contact with the cross-linked hemoglobin with a dilute solution of a hemoglobin.

23 (presently amended). The preparation of endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim [20] **19**, wherein said process step (B) comprises centrifuging a

solution of said cells under vacuum at a speed sufficient to produce a force greater than the surface tension of the solution.

24 (original). The preparation of endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim 21, wherein said red blood cells are human red blood cells.

25 (original). The preparation of endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim 21, wherein said red blood cells are bovine or porcine red blood cells.

26 (original). The preparation of endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim 21, wherein said preparation additionally contains a pharmaceutically acceptable carrier.

27 (presently amended). A preparation of non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin produced by the process comprising the steps of:

- (A) removing endotoxin from a preparation containing red blood cells;
- (B) lysing red blood cells; and
- (C) removing oxygen from hemoglobin of said lysed red blood cells, **wherein said oxygen is removed by centrifuging the red blood cells under a vacuum sufficient to remove oxygen from the preparation.**

28 (canceled).

29 (original). The preparation of non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim 27, wherein said process additionally comprises the steps of:

- (D) separating hemoglobin from the stroma of said lysed red blood cells; and
- (E) cross-linking said separated hemoglobin.

30 (presently amended). The preparation of non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim [29] **27**, wherein said process step (A) additionally

comprises washing surfaces and equipment that will come into contact with the cross-linked hemoglobin with a dilute solution of a hemoglobin.

31 (presently amended). The preparation of endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim [28] 27, wherein said process step (C) comprises centrifuging a solution of said cells under vacuum at a speed sufficient to produce a force greater than the surface tension of the solution.

32 (presently amended). The preparation of endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim [29] 27, wherein said red blood cells are human red blood cells.

33 (presently amended). The preparation of endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim [29] 27, wherein said red blood cells are bovine or porcine red blood cells.

34 (presently amended). The preparation of endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim [29] 27, wherein said preparation additionally contains a pharmaceutically acceptable carrier.

35 (presently amended). A method for producing a non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin comprising the steps of:

- (A) removing endotoxin from a preparation containing red blood cells;
- (B) removing oxygen from said preparation containing red blood cells, **wherein said oxygen is removed by centrifuging the red blood cells under a vacuum sufficient to remove oxygen from the preparation**; and
- (C) lysing red blood cells.

36 (canceled).

37 (presently amended). The method for producing a non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim [36] 35, wherein said method additionally comprises the steps of:

- (D) separating hemoglobin from the stroma of said lysed red blood cells; and
- (E) cross-linking said separated hemoglobin.

38 (original). The method of claim 35, wherein said process step (A) additionally comprises washing surfaces and equipment that will come into contact with the cross-linked tetrameric hemoglobin with a dilute solution of a hemoglobin.

39 (presently amended). The method of claim [36] 35, wherein said process step (B) additionally comprises centrifuging a solution of said cells under vacuum at a speed sufficient to produce a force greater than the surface tension of the solution.

40 (original). The method of claim 37, wherein said hemoglobin is human hemoglobin.

41 (original). The method of claim 37, wherein said hemoglobin is bovine or porcine hemoglobin.

42 (presently amended). A method for producing a non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin comprising the steps of:

- (A) removing endotoxin from a preparation containing red blood cells;
- (B) lysing red blood cells; and
- (C) removing oxygen from hemoglobin of said lysed red blood cells, **wherein said oxygen is removed by centrifuging the red blood cells under a vacuum sufficient to remove oxygen from the preparation.**

43 (canceled).

44 (presently amended). The method for producing a non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin of claim [43] 42, wherein said method additionally comprises the steps of:

- (D) separating hemoglobin from the stroma of said lysed red blood cells; and
- (E) cross-linking said separated hemoglobin.

45 (original). The method of claim 42, wherein said process step (A) comprises washing surfaces and equipment that will come into contact with the cross-linked tetrameric hemoglobin with a dilute solution of a hemoglobin.

46 (presently amended). The method of claim [43] 42, wherein said process step (C) additionally comprises centrifuging a solution of said cells under vacuum at a speed sufficient to produce a force greater than the surface tension of the solution.

47 (original). The method of claim 44, wherein said hemoglobin is human hemoglobin.

48 (original). The method of claim 44, wherein said hemoglobin bovine or porcine hemoglobin.

49 (presently amended). A method of increasing the oxygen carrying capacity of an individual which comprises administering to said individual a non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin administered by transfusion or injection, wherein said non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin is produced by a process comprising the steps:

- (A) removing endotoxin from a preparation containing red blood cells;
- (B) removing oxygen from said preparation containing red blood cells, wherein said oxygen is removed by centrifuging the red blood cells under a vacuum sufficient to remove oxygen from the preparation; and
- (C) lysing red blood cells.

50-52 (canceled).

53 (presently amended). The method **[for producing a non-pyrogenic, endotoxin-free, stroma-free, cross-linked tetrameric hemoglobin]** of claim **[51] 49**, wherein said process additionally comprises the steps of:

- (D) separating hemoglobin from the stroma of said lysed red blood cells; and
- (E) cross-linking said separated hemoglobin.

54 (presently amended). The method of claim **[51] 49**, wherein said process step (A) additionally comprises washing surfaces and equipment that will come into contact with the cross-linked tetrameric hemoglobin with a dilute solution of hemoglobin.

55 (presently amended). The method of claim **[51] 49**, wherein said process step (B) additionally comprises centrifuging a solution of said cells under vacuum at a speed sufficient to produce a force greater than the surface tension of the solution.

56 (original). The method of claim 53, wherein said hemoglobin is human hemoglobin.

57 (original). The method of claim 53, wherein said hemoglobin is bovine or porcine hemoglobin.

58-60 (canceled).

61 (original) The method of claim 56, wherein said process step (A) comprises washing surfaces and equipment that will come into contact with the cross-linked tetrameric hemoglobin with a dilute solution of hemoglobin.

62 (original). The method of claim 56, wherein said process step (C) additionally comprises centrifuging a solution of said cells under vacuum at a speed sufficient to produce a force greater than the surface tension of the solution.

63 (original). The method of claim [60] 53, wherein said hemoglobin is human hemoglobin.

64 (original). The method of claim [60] 53, wherein said hemoglobin is bovine or porcine hemoglobin.

• 65-71 (canceled).